

- 1 -
piece 1, NC_000913, araE_TERM47+, config: linear, direction: +, begin: 2980175, end: 2980491

5' * 2980180 * 2980190 * 2980200 * 2980210 * 2980220 * 2980230 * 2980240 * 2980250 *
- t a a a g c a g a t t c c g t a t t g a t a c c a t t t c c t g c a g c a g a g a t a a g a c a t g t a a a a a a a t a c g t q a a c a a c t 3'
- lys - ala - asp - ser - val - leu - ile - val - thr - ile - phe - ser - cys - gln - arg - val - arg - his - ser - glu - lys - ile - arg - glu - gln - leu -
- lys - gln - ile - pro - tyr - lys - gln - ile - pro - tyr - lys - lys - tyr - val - asn - asn - ser -

...] NC_000913.araE

p10 3.0 bits

p35 5.3 bits

p35-(23)-p10 2980231 Gap 1.4 bits

p35-p10 2980231 total 6.9 bits

5' * 2980260 * 2980270 * 2980280 * 2980290 * 2980300 * 2980310 * 2980320 * 2980330 *
- c a c g c a g g t g t c a g g t c g g a a a c a g c a t a a a t a t g a t t a a a t t g c t g c g a c a t g t c g t t a t g t g a t g g a t t c c a a t t 3'
- thr - gln - val - ser - gly - arg - lys - gln - his - lys - tyr - gly - leu - asn - cys - cys - asp - met - ser - leu - cys - asp - gly - tyr - ser - asn - phe -
- arg - arg - cys - gln - val - gly - asn - ser - ile - asn - met - asp -

... p35

{- ... p35-(24)-p10 2980360 Gap
- ... p35-p10 2980360 total 5.8 bits

5' * 2980340 * 2980350 * 2980360 * 2980370 * 2980380 * 2980390 * 2980400 * 2980410 *
- t c a a a t t a a g t t g a a t t a t t g a g a t t a t t a a c c a c c t a a t t t a c a g c a g a t a a a a t t c a t a a a g t t c a t t a a t t g a t 3'
- gln - ile - lys - leu - fMet - arg - leu - leu - leu - thr - thr - lys - leu - ser -
- lys - leu - ser -

p10 3.0 bits

p10 4.4 bits

p10 7.6 bits

... sd

{- ... sd-(10)-ir 2980425 Gap

... -----| p35-p10 2980360 total 5.8 bits

p35 3.2 bits

p10 5.1 bits

... sd

{- ... sd-ir 2980425 araE_TERM47

p35 1.6 bits

p10 7.1 bits

{-

p35-p10 2980363 Gap 3.3 bits

{-

p35-(21)-p10 2980401 Gap 3.3 bits

{-

... p35-(26)-p10 2980422 Gap

p35 4.6 bits

{-----| p35-(24)-p10 2980392 Gap 2.4 bits

... p35

{-----| p35-p10 2980422 total 4.8 bits

{-----| p35-(23)-p10 2980437 Gap

{-----| p35-p10 2980377 total 5.7 bits

p35 1.2 bits

{-----| p35-p10 2980401 total 5.0 bits

{-----| p35-p10 2980437 total 5.4 bits

5' * 2980420 * 2980430 * 2980440 * 2980450 * 2980460 * 2980470 * 2980480 * 2980490 *
- a a t t a a t t a t t g g a t t t t c a t a a c c a t g a t a t g g a t t a t g a t t c t a a g g t a t a a a a c c t t g c c a t g c g g 3'
- ile - asn - met - asp - tyr - phe - ile - thr - met - ile - trp - ile - met - met - ile - tyr - arg - tyr - lys - lys - pro - cys - his - ala -
- fMet - arg -

sd ir araE_TERM47+

ir araE_TERM47+

Diagram illustrating the structure of a bacterial operon with various promoters (p35, p10) and terminators (araE_TERM47+, araE_TERM455). The diagram shows the sequence segments (sd, ir, p35, p10), gap sizes (Gap 2.7 bits, Gap 3.7 bits, etc.), and total bits for each construct.

- sd-(10)-ir 2980425 Gap 2.7 bits
- sd-ir 2980425 araE_TERM47+ total 9.0 bits
- sd
- ir araE_TERM47+
- p35-(26)-p10 2980422 Gap 3.7 bits
- sd-(15)-ir 2980443 Gap 6.0 bits
- p35 5.6 bits
- sd-ir 2980455 araE_TERM47+ total 8.0 bits
- sd-ir 2980443 araE_TERM47+ total 10.1 bits
- p35-p10 2980422 total 4.8 bits
- p35-(23)-p10 2980437 Gap 1.4 bits
- p35 2.6 bits
- sd-(7)-ir 2980458 Gap 3.7 bits
- p35-p10 2980437 total 5.4 bits
- p10 6.4 bits
- p10 6.3 bits
- p10 1.2 bits
- p10 3.6 bits
- p35-(23)-p10 2980443 Gap 1.4 bits
- p35-p10 2980443 total 4.7 bits
- p35 5.3 bits
- p35-(21)-p10 2980455 Gap 3.3 bits
- p35-p10 2980455 total 8.5 bits
- p35-(24)-p10 2980458 Gap 2.4 bits
- p35-p10 2980458 total 5.3 bits